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THE DIMINISHING MENACE OF TUBERCULOSIS

Eventually all must die. Here we have certainty; or as we say in more technical terms, the probability of eventually dying from *some* cause is unity. But the probability of dying from a *specified* cause is some fraction of unity, a fraction which varies from one disease to another, and which is subject to important changes with the lapse of time. We shall, in successive issues of this BULLETIN, present a series of articles setting forth these probabilities for some of the principal causes of death, and the shift—up or down, as the case may be—that has taken place within the last decade.

The case of tuberculosis is outstanding. It would be well if an equally favorable record could be shown for all the other important causes of death, but this, as we shall see later, is unfortunately not so. The accompanying tables exhibit the state of affairs with regard to tuberculosis (all forms). Among white males at birth, the probability of eventually dying from this disease was 6.46 per cent., or 64.6 per 1,000 in 1920, and fell to 50.9 per 1,000 in 1925 and to 42.5 per 1,000 in 1930. This means that, out of every thousand white males born at the present time, twenty-two escape the death from tuberculosis to which they would have been fated under conditions prevailing ten years ago. The very marked diminution which has thus occurred is perhaps more clearly brought to view when the figures are expressed in per cents of the probability of dying as of 1920. We then find as follows: writing 100 for the probability in 1920, the corresponding figures for white males in 1925 and 1930 are 78.8 and 65.8 respectively. Among white females, the probability is considerably lower throughout; so in 1920, the probability at birth is 57.7 per 1,000; in 1925, 44.4 per 1,000; and in 1930, 35.6 per 1,000. Expressed in terms of the probability in 1920 equated to 100, these figures are 100 for 1920, 76.8 for 1925, and 61.7 for 1930.

The tables show in detail how the probability varies at different periods of life. Among white males, the probability of ultimately

dying from tuberculosis rises to a maximum at age fifteen, and this maximum occurs at the same age on three dates, 1920, 1925 and 1930, as closely as can be judged from a table that gives only every fifth year of life. Among white females, the maximum probability is at ten years of age in 1920 and in 1925, and at age five in 1930, although there is very little difference between the figures at ages five and ten among white females in each of these calendar years. The question has frequently been discussed whether tuberculosis should be regarded as typically a disease of early life. A glance at the table will show that, in very recent times, this predominance of tuberculosis mortality at the younger ages is much moderated. For instance in 1930, the probability at age fifteen of ultimately dying from tuberculosis is 45.2 per 1,000 for white males and it is still a very considerable figure, namely, 25.3 per 1,000, at age fifty. The contrast was greater in 1920, where we see that, at age fifteen, the probability of ultimately dying from tuberculosis was 70.9 per 1,000, whereas at age fifty, it was 36.1 per 1,000. The situation among white females is essentially similar in this respect. Thus, in former years, tuberculosis was, in greater degree than today, a cause of death characteristic of adolescence and early adult life.

If we now glance at the part of the table which gives the chances in 1925 and 1930 expressed as per cents of the chances in 1920, perhaps the most striking feature here is the relative constancy at all ages of life. It is not, of course, absolutely constant, but the variations, for instance among white males, in the column headed 1930, lie between the extremes of 63.7 and 78.0, if we omit the doubtful figure at age ninety; and if we also omit the rather extreme figure at age eighty, the range is only from 63.7 to 73.8. Similarly, among females, in the column for 1930, the range is from 59.9 to 79.2, if we omit the figures over age 80, and from 59.9 to 77.6, if we exclude the figures for ages 80 and over. Thus the chances of dying from tuberculosis have been reduced in roughly the same proportion at all ages, with a tendency, however, to somewhat greater reduction at the younger ages of life.

If we now examine the table relating to the colored population, where only figures for 1925 and 1930 are available, the main fact that strikes the eye is the familiar one that tuberculosis is a particularly serious menace to the colored, the figures in this table being throughout higher than in the table for white persons. So, for example, according to conditions prevailing in 1930, out of every 1,000 males born, 42.5 will eventually die of tuberculosis in the white

Chances per 1,000 of Eventually Dying from Tuberculosis,* for Specified Ages, White Males and Females United States, 1920†, 1925† and 1930‡

Age	White Males			White Females		
	1920	1925	1930	1920	1925	1930
0	64.6	50.9	42.5	57.7	44.4	35.6
5	70.5	54 6	45.0	61.7	46.6	37.1
10	70.8	54.8	45.1	61.8	46.6	37.0
15	70.9	54.9	45.2	61.2	46.1	36.8
20	69.5	53.7	44.6	57.1	43.0	34.9
25	65.0	50.6	42.4	50.3	37.8	31.1
30	59.4	46.6	39.6	43.8	32.7	27.4
35	53.6	42.3	36.4	38.3	28.5	24.2
40	47.7	38.0	32.9	33.4	25.2	21.6
45	41.8	33.2	29.2	29.2	22.3	19.4
50	36.1	28.7	25.3	25.6	19.8	17.5
55	30.4	24.4	21.5	22.6	17.8	15.7
60	25.0	20.2	17.7	19.6	15.6	13 9
65	20.0	16.4	14.2	16.7	13.4	12.2
70	14.8	12.1	10.9	13.2	10.7	10.0
75	10.5	8.3	7.8	10.2	7.8	7.9
80	6.7	5.5	5.2	6.7	4.9	5.3
85	4.7	3.5	3.1	5.0	3.1	3.2
90	4.6	1.7	2.4	3.4	2.4	2.0
	Chances in 1925 and 1930 as Per Cent. of Chances in 1920					
0	100.0	78.8	65.8	100.0	76.8	61.7
5	100.0	77.5	63.9	100.0	75.5	60.1
10	100.0	77.4	63.7	100.0	75.4	59.9
15	100.0	77.3	63.7	100.0	75.5	60.2
20	100.0	77.3	64.1	100.0	75.4	61.1
25	100.0	77.9	65.3	100.0	75.1	61.8
30	100.0	78.5	66.7	100.0	74.7	62.5
35	100.0	78.9	67.9	100.0	74.3	63.2
40	100.0	79.5	69.0	100.0	75.4	64.7
45	100.0	79.5	70.0	100.0	76.3	66.5
50	100.0	79.6	70.1	100.0	77.4	68.1
55	100.0	80.0	70.6	100.0	78.7	69.4
60	100.0	80.7	70.8	100.0	79.6	71.0
65	100.0	82.0	71.0	100.0	80.0	72.9
70	100.0	81.3	73.7	100.0	81.2	76.0
75	100.0	78.3	73.8	100.0	76.4	77.6
80	100.0	81.6	78.0	100.0	74.0	9.2
85	100.0	73.4	66.2	100.0	62.7	63.1
90	100.0	37.1	51.5	100.0	69.4	59.4

*All forms of tuberculosis are included in the term.

†Data relate to the Death Registration States as of 1920.

‡Data relate to the Death Registration States as of 1930.

population, but 96.7 in the colored population. In other words, the chances for a newborn colored male to die eventually from tuberculosis is as 228 to 100, as compared with that for a white male. The corresponding figures for females are (at birth) 35.6 for white, 91.3 for the colored. Here the ratio of the chances is even higher, namely 256 to 100 for the colored, as compared with white persons. This does not mean merely that the deathrate from tuberculosis is higher among colored persons than among white; it means also that, of the deaths among colored persons, a larger proportion are from tuberculosis than among white persons.

Chances per 1,000 of Eventually Dying from Tuberculosis,* for Specified Ages, Colored Males and Females United States, 1925† and 1930‡

Age	Chances per 1,000				Chances in 1930 as Per Cent. of Chances in 1925			
	Colored Males		Colored Females		Colored Males		Colored Females	
	1925	1930	1925	1930	1925	1930	1925	1930
0	103.8	96.7	105.3	91.3	100.0	93.1	100.0	86.7
5	117.9	107.1	116.8	98.7	100.0	90.9	100.0	84.6
10	117.8	106.6	116.6	98.0	100.0	90.5	100.0	84.0
15	116.8	105.9	113.3	95.1	100.0	90.7	100.0	83.9
20	109.7	100.4	101.8	85.4	100.0	91.5	100.0	83.8
25	96.9	89.7	84.9	71.5	100.0	92.6	100.0	84.2
30	84.3	78.5	69.9	61.0	100.0	93.2	100.0	87.3
35	72.3	66.5	57.6	49.3	100.0	92.0	100.0	85.5
40	62.7	56.9	48.6	40.8	100.0	90.7	100.0	84.0
45	53.9	47.9	40.9	34.3	100.0	88.9	100.0	83.8
50	46.6	40.3	33.6	29.1	100.0	86.4	100.0	86.5
55	39.8	34.2	28.2	24.6	100.0	85.9	100.0	87.2
60	33.1	29.3	22.5	20.8	100.0	88.3	100.0	92.3
65	28.5	26.1	17.9	18.2	100.0	91.7	100.0	101.7
70	24.0	19.6	15.6	14.7	100.0	81.7	100.0	94.3
75	18.7	15.4	12.5	12.2	100.0	82.4	100.0	97.9
80	12.8	9.6	9.7	9.9	100.0	74.9	100.0	102.0

*All forms of tuberculosis are included in the term.
†Data relate to the Death Registration States as of 1920.
‡Data relate to the Death Registration States as of 1930.

LOW DEATHRATES IN AUTUMN

The people of the United States and Canada usually have the benefit of excellent health conditions in the final quarter of the year; and this is the experience of the current autumn, to date. The deathrates from October to December are much more favorable as a

rule than in winter or spring, and are only slightly higher than the minimum mortality which prevails, year after year, in summer. This has been the experience of the Metropolitan Life Insurance Company among its millions of white Industrial policyholders for the past five autumns. The average autumn deathrate in this insured group was 7.5 per 1,000, as against 9.3 for the winters of the same years, 8.4 for the springs, and 7.1 for the summers. The average autumn mortality rate has been only little higher than that for the summer, as contrasted with a large increase between autumn and winter. In spring, the mortality rate improves over the winter figure due, largely, to a seasonal drop in deaths from respiratory diseases. But the spring deathrate, nevertheless, is much higher than that for the autumn months.

Each individual cause of death has its own season of maximum and minimum incidence. Typhoid fever, diphtheria, alcoholism and automobile fatalities are the only ones of all the causes that show their maximum mortality rates in autumn; and, in fact, the autumn diphtheria and alcoholism deathrates for the five-year period 1928-1932 were duplicated in the winter months. The average autumn deathrate for automobile accidents was only slightly higher than the summer figure.

There are considerably fewer deaths from tuberculosis in the autumn and summer than in the other seasons. The average fall and summer deathrates for this disease were less than 58 per 100,000 for the past five years, as against 68 and 69 in the winter and spring months respectively. The measles deathrate is almost nil in the autumn, and deaths from whooping cough are also at their lowest point.

The seasonal incidence of suicide is of particular interest. In the wage earning group of the population, at least, the autumn deathrate has been lower during the last five years, than that of any other season. For the population at large, it seems that the low point for suicide is reached during the winter season. One point is clear with respect to the white wage earning population, namely, that suicides are considerably more frequent during the spring than at any other season. The deathrate reaches its peak, strange to say, in the month of May, which, many will agree, is usually the pleasantest of the year; and it is in the bleak months of December and January that people resort to self-murder least frequently.

Deaths of women from causes incidental to pregnancy and childbirth show a decided seasonal incidence. Among insured women, the autumn deathrate for the five-year period 1928–1932 was nearly

3 per cent. lower than that for the summer season, more than 9 per cent. lower than in the spring, and almost 16 per cent. below that registered for the winter.

The accompanying table displays the average deathrates for important causes of death, for each quarter of the year, during the five-year period 1928 to 1932:

Average Deathrate Five Years, 1928 to 1932. White Persons, All Ages. Metropolitan Life Insurance Company, Weekly Premium-Paying Industrial Business

Causes of Death	Deaths per 100,000 (Annual Basis)			
	Jan.–Mar.	April–June	July–Sept.	Oct.–Dec.*
All Causes	925.1	835.9	712.9	753.9
Typhoid fever	1.2	1.3	2.5	2.6
Measles	4.1	6.7	1.6	.9
Scarlet fever	4.2	3.9	1.6	2.4
Whooping cough	4.9	4.6	4.4	3.4
Diphtheria	9.5	6.5	4.1	9.5
Influenza	45.1	19.5	4.4	12.4
Meningococcus meningitis	2.9	3.2	1.8	1.8
Tuberculosis (all forms)	67.5	68.7	57.6	57.7
Tuberculosis of resp'y system	59.8	59.7	50.5	51.0
Tuberculosis of the meninges, etc.	3.2	4.2	3.1	2.9
Other forms of tuberculosis	4.4	4.8	4.0	3.8
Cancer	80.7	80.8	79.5	77.9
Diabetes	22.5	19.6	16.2	17.6
Alcoholism	3.1	2.8	2.4	3.1
Cerebral hemorrhage; apoplexy	57.8	54.0	46.4	49.5
Organic diseases of the heart	156.7	139.2	112.5	122.9
Total respiratory diseases	127.2	91.4	37.6	67.4
Bronchitis	4.5	3.4	1.9	2.9
Bronchopneumonia	47.3	33.9	14.6	25.1
Pneumonia (lobar and undefined)	66.4	46.5	15.8	33.0
Other dis. of respiratory system	9.0	7.6	5.3	6.4
Diarrhea and enteritis	11.8	12.6	29.6	22.3
Under 2 years	9.5	9.9	23.7	18.4
2 years and over	2.3	2.7	5.9	3.9
Acute nephritis	3.8	3.6	3.0	3.5
Chronic nephritis	68.1	61.8	51.3	56.6
Total puerperal state	12.6	11.7	10.9	10.6
Total external causes	65.2	70.8	83.4	71.9
Suicides	9.2	10.9	9.6	8.9
Homicides	3.2	3.1	3.4	3.0
Accidental and unspecified violence	52.9	56.8	70.3	60.0
Automobile accidents	16.7	18.4	22.2	22.7
Other accidents and unspecified violence	36.2	38.4	48.1	37.3
All other and ill-defined causes of death	176.3	173.3	162.1	159.9

*Oct.–Dec. is based on the five years 1927 to 1931.

WHY HAVE DEATHS FROM EXOPHTHALMIC GOITER INCREASED?

In spite of marked improvements in the surgical and medical treatment of goiter patients, the mortality from exophthalmic goiter among Metropolitan Industrial policyholders has more than doubled in the past two decades. Only among white women and, in the last five years, has there been any sign of a downward trend.

This is a chronic disease of the thyroid gland, characterized by enlargement and overactivity of the gland, rapid heart action, protrusion of the eyeball, tremor and an increased basal metabolism. The basic etiologic factor of the disease is not known.

Comparing the first ten years with the last ten of a twenty-one-year series, 1911 to 1931, we find that practically every age period has recorded an increase in mortality. Although the deathrates for males, both white and colored, are much smaller than those for females, the increase in mortality among men has been greater. However, seventeen out of every twenty deaths from exophthalmic goiter affect females, and, in this sex, the deathrate has risen 65 per cent. for whites and 80 per cent. for the colored. The smaller increase for white females is due, in part, to the gradual recession of the deathrate among these policyholders since 1926. These facts are presented in detail in the table on page 8.

We have no ready explanation to account for the increase in the recorded mortality from toxic goiter in the past two decades. In fact, it is difficult to understand why the deathrate has not been declining. Surgical technique in goiter operations and pre-operative treatment of these patients have improved notably. More accurate methods of diagnosis have led to the recognition of the disease earlier in its course, with the result that those cases requiring surgical intervention are being brought under the knife at an earlier stage of the disease, with a consequent decrease of the surgical risk. Possibly the gradual decline in the deathrate among white females during the past five years reflects the results of these improvements.

Furthermore, authorities believe that acute infections, especially focal infections, are factors in bringing on the disease or in aggravating it, once it has begun. An outstanding feature in the medical history of the past two decades has been the remarkable decline in the incidence of acute infections, such as typhoid fever and the acute diseases of childhood. In addition, there has been a marked increase in the practice of tonsillectomy and more general attention to dental and oral hygiene. These factors should have tended to decrease the

case-incidence and mortality from exophthalmic goiter, but, instead, the increase to which we have referred has been observed.

While typical cases of exophthalmic goiter are easily recognized, specialists in the disease agree that, in the absence of certain symptoms, it is difficult to diagnose. One reason for the increase in the number of deaths charged to the disease is the improvement in diagnosis to which we have already referred. This has led to the recognition of more and more cases, with the result that this condition is being reported on the death certificates more and more frequently. However, it is not likely that better diagnosis accounts for all of the increase in the registered mortality. What other factors have contributed to the rise in the deathrate we do not know. Possibly a critical investigation into the relative merits of medical and surgical treatment for given types of cases would shed some light on this puzzling situation.

Deathrates per 100,000 from Exophthalmic Goiter. By Color, Sex and Age Periods. Metropolitan Life Insurance Company. Weekly Premium-Paying Business, Industrial Department, 1911 to 1931

Age Period	White				Colored				Percentage Increase 1922–1931 Since 1911–1920			
	Males		Females		Males		Females		White		Colored	
	1922 to 1931	1911 to 1920	1922 to 1931	1911 to 1920	1922 to 1931	1911 to 1920	1922 to 1931	1911 to 1920	Males	Females	Males	Females
Ages 1 to 74 years*	.7	.3	4.3	2.6	.7	.3	4.5	2.5	133.3	65.4	133.3	80.0
15 to 19	.3	.2	1.7	1.6	...	...	2.2	1.1	50.0	6.3	.....	100.0
20 to 24	.4	.4	2.2	2.2	.4	...	2.9	1.5	†	†	.....	93.3
25 to 34	.8	.4	4.1	3.1	.6	.5	4.2	3.0	100.0	32.3	20.0	40.0
35 to 44	1.4	.3	6.8	5.1	1.4	.4	9.6	4.3	366.7	33.3	250.0	123.3
45 to 54	1.7	.5	12.1	5.8	1.9	.7	10.4	6.1	240.0	108.6	171.4	70.5
55 to 64	1.6	.5	12.3	5.3	2.1	1.2	9.5	5.5	220.0	132.1	75.0	72.7
65 to 74	1.2	.9	13.2	4.9	2.1	.9	11.3	6.5	33.3	169.4	133.3	73.8

*Standardized. †No change in rate.

HEALTH RECORD FOR OCTOBER, 1932

The lowest mortality rate ever recorded for the month of October, among the millions of Industrial policyholders of the Metropolitan Life Insurance Company, was registered in that month of 1932. The figure is 7.5 per 1,000; and the closest approach to it in former Octobers was 7.8—in both 1931 and 1927. Five of the ten elapsed months of 1932 (January, February, April, July and October) have registered lower mortality rates than have ever before been in

evidence for these months. Among insured Canadians, the October deathrate dropped 21 per cent., as compared with the same month of last year. Among the great bulk of the insured, who live in the United States, east of the Rocky Mountains, the improvement was about 3 per cent. In the Pacific Coast and Rocky Mountain regions, the deathrate, although lower than in the rest of the United States, was a little higher than the October figure for last year.

In all sections of the United States and in Canada, combined, the 1932 health record of insured wage earners and their dependents, up to the end of October, has been better than ever before. The cumulative deathrate for the entire group of Metropolitan Industrial policyholders is nearly 3 per cent. below the previous minimum for any like period of any year. It is thus evident that in all sections of the two countries in which the Company writes business, the health of the wage earners has not been adversely affected by the widespread unemployment and generally unfavorable economic conditions which have prevailed. There have been no serious epidemics; weather conditions in general have been good; and excellently planned relief work has served to alleviate distress. These three factors have played an important rôle in maintaining the health of the industrial classes who, more than any other group, bear the brunt of adverse economic conditions.

With respect to individual causes of death, the outstandingly favorable, and the few unfavorable items in the year's health record, are the same as have been pointed out from month to month in the STATISTICAL BULLETIN. There are five important causes of death which are now certain to record new minimal deathrates this year. They are tuberculosis, pneumonia, diarrheal complaints, puerperal conditions and accidents. In addition, there is good prospect that typhoid fever, measles and diphtheria will register new lows. On the other hand, it is equally certain that cancer, diabetes and organic heart disease will record new maximum mortality rates; and that for cancer, in particular, the year-to-year rise will be larger than ever before observed among Metropolitan Industrial policyholders.

The October tuberculosis deathrate of 57.4 per 100,000 marks an epoch in the history of that disease. This is the lowest figure recorded for *any* month of any year in the history of the millions of Metropolitan Industrial policyholders. This is the first time, in fact, that their tuberculosis deathrate for any calendar month has dropped below 60 per 100,000. The decline for the year, to date, amounts to 8 per cent., as compared with the figure for the like

period of 1931. The pneumonia deathrate has dropped nearly 16 per cent. since last year, and the October figure of 40.5 per 100,000 for this disease is the lowest recorded for any October since 1923. The dark side of the picture is that the cumulative mortality rates for cancer, diabetes and heart disease have increased 9.5 per cent., 9.2 per cent. and 4.8 per cent. respectively, as compared with those for the like part of last year.

The deathrate from automobile fatalities has declined 12.5 per cent. since 1931. As explained in the October STATISTICAL BULLETIN, this is due, in part at least, to a decline in motor vehicle traffic.

The deathrate in the general population of the large cities of the United States during October was 10.2 per 1,000 estimated population, as compared with 9.5 in September and 10.2 in October of 1931. The diseases which showed increased prevalence during October were diphtheria, influenza, measles, scarlet fever and smallpox. Fewer cases of sickness from poliomyelitis and typhoid fever were recorded. Both the increases and decreases for the above diseases are seasonal. Compared with October, 1931, there was more sickness from influenza, measles and scarlet fever, together with fewer cases of diphtheria, poliomyelitis, smallpox and typhoid fever.

Reports from 31 states show that diphtheria cases increased from 3,597 in September to 6,662 in October. Measles cases, in 17 states, showed an increase from 1,539 to 3,313; and scarlet fever cases, in 42 states, an increase from 5,309 to 11,742. Poliomyelitis, according to reports from 45 states, declined from 1,113 cases in September to 547 in October.

Forty-four states reported a total of 150 smallpox cases during October, as against 102 in September. In each of these months, one-fifth of all the smallpox cases were reported from Ohio.

Among the outstanding public health activities reported during October were the following. A nation-wide survey of accidents connected with athletics has been undertaken by educators and laymen interested in physical education. This study is a part of a three-fold campaign for safety in college, high-school and elementary school sports. Two physicians from each Congressional district in Georgia have been appointed by the State Medical Association as a commission to study the high maternal deathrate in Georgia. The Kansas Tuberculosis and Health Association, at its annual meeting, passed a resolution petitioning the incoming Legislature to provide funds for the establishment of a Division of Tuberculosis within the State Board of Health.

The following table shows the mortality among Industrial policyholders for October, 1932; September, 1932, and October, 1931, together with the cumulative rates for the first ten months of each year.

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates* per 100,000 for Principal Causes Premium-Paying Business in Industrial Department (Annual Basis)

MONTHS OF OCTOBER, 1932; SEPTEMBER, 1932, AND OCTOBER, 1931

CAUSES OF DEATH	ANNUAL RATE PER 100,000 LIVES EXPOSED*				
	Oct. 1932	Sept. 1932	Oct. 1931	Cumulative January to October	
				1932	1931
TOTAL—ALL CAUSES	753.7	769.1	781.9	859.4	888.4
Typhoid fever	3.0	2.5	4.9	1.7	2.2
Measles	.2	.3	.5	1.9	3.4
Scarlet fever	1.7	.6	1.9	2.9	3.2
Whooping cough	1.4	2.6	3.3	3.2	3.6
Diphtheria	3.7	2.3	4.0	3.8	3.9
Influenza	7.1	3.7	5.2	18.0	22.4
Tuberculosis (All forms)	57.4	62.8	71.1	71.0	77.2
Tuberculosis of resp'y system	51.4	55.9	63.1	62.7	68.1
Cancer	86.1	90.9	79.9	90.2	82.4
Diabetes mellitus	21.4	19.4	18.5	22.6	20.7
Cerebral hemorrhage	57.5	54.8	55.8	62.3	61.3
Organic diseases of heart	145.2	135.5	126.1	156.1	149.0
Pneumonia (All forms)	40.5	29.1	41.4	64.6	76.7
Other respiratory diseases	7.8	6.5	8.4	9.2	10.6
Diarrhea and enteritis	14.4	24.7	27.0	11.9	16.5
Bright's disease (Chronic nephritis)	60.8	60.3	58.5	68.1	66.5
Puerperal state	7.7	11.7	10.0	10.7	11.3
Suicides	10.8	9.8	10.0	11.0	9.9
Homicides	6.1	6.2	8.4	6.1	7.0
Other external causes (excluding suicides and homicides	48.2	64.7	57.2	55.5	61.3
Traumatism by automobiles	19.1	21.8	25.5	18.9	21.6
All other causes	172.6	180.6	189.8	188.8	199.3

*All figures in this table include insured infants under one year of age. The rates for 1932 are subject to slight correction, since they are based on provisional estimates of lives exposed to risk.

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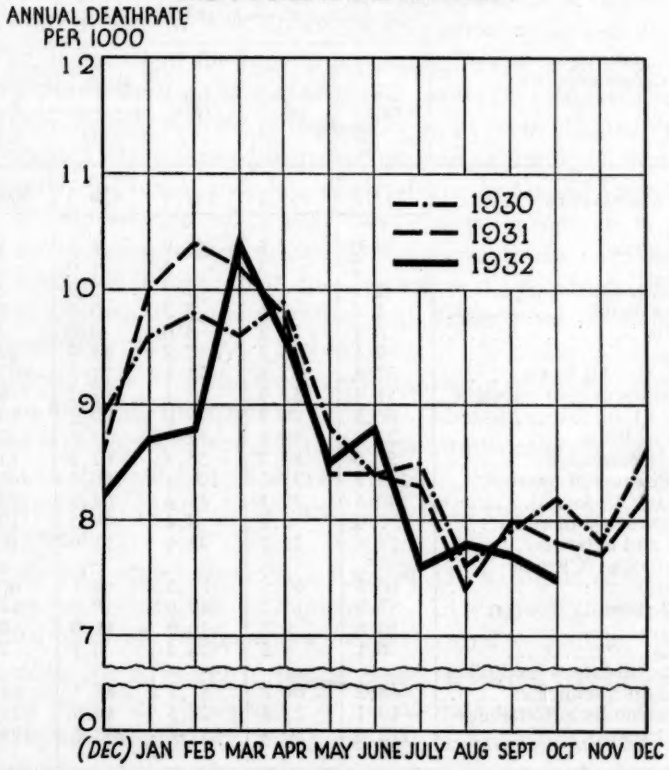
DEATHRATES
FROM ALL CAUSES

METROPOLITAN LIFE INSURANCE CO.
INDUSTRIAL DEPARTMENT



1930	9.6	9.8	9.6	9.9	8.8	8.4	8.5	7.6	7.9	8.2	7.8	8.6
1931	10.0	10.4	10.2	9.8	8.4	8.4	8.3	7.4	8.0	7.8	7.7	8.2
1932*	8.7	8.8	10.4	9.6	8.5	8.8	7.6	7.8	7.7	7.5		

* *Rates for 1932 are provisional*

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